

AP179HO



PATENT

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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Viresh Ratnakar, et al.

Group Art Unit: 2643

Serial No.: 10/631,155

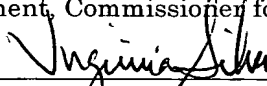
Examiner: Not Yet Assigned

Filed: July 31, 2003

Title: Video Codec System with Real-Time Complexity Adaptation

**CERTIFICATE OF MAILING**

I hereby certify that this Information Disclosure Statement and the documents attached hereto, are being deposited with the United States Postal Service with sufficient postage as First Class mail in an envelope addressed to the Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.  
Date: June 2, 2004

  
Virginia Silva

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. §1.56, and in accordance with the practice under 37 C.F.R. §1.97 and §1.98, the Examiner's attention is directed to the document(s) listed on the enclosed Form PTO-1449. A copy of each listed document is enclosed, except, in the case where this application is filed after June 30, 2003, copies of any U.S. patents and U.S. patent application publications are not enclosed.

This Information Disclosure Statement is being filed within three months of the U.S. filing date or before the mailing date of a first Office Action on the merits. No statement or fee is required (37 CFR §1.97(b)).

**CONCLUSION**

The Commissioner is hereby authorized to charge any additional fees, which may be required, or credit any over-payment to Deposit Account No.: 19-2746.

It is respectfully requested that the above information be considered by the Examiner and that a copy of the enclosed Form PTO-1449 be initialed and returned indicating that such information has been considered.

Respectfully submitted,



Michael T. Gabrik  
Registration No. 32,896

Please address all correspondence to:

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Date: June 2, 2004

Form PTO-1449 DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE CITATION (USE SEVERAL SHEETS IF NECESSARY) PAGE 1 OF 1	SERIAL NO. 10/631,155	ATTY DOCKET NO. AP179HO
	APPLICANT Viresh Ratnakar, et al.	
	FILING DATE July 31, 2003	GROUP 2643

**U.S. PATENT DOCUMENTS**

E.I.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	AA					
	AB					
	AC					
	AD					
	AE					
	AF					
	AG					
	AH					
	AI					
	AJ					
	AK					

**OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)**

AL	BEDE LIU and ANDRE ZACCARIN, "New Fast Algorithms for the Estimation of Block Motion Vectors", <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , Vol. 3, No. 2, April 1993, pp. 148-157
AM	ZHOU WANG and ALAN CONRAD BOVIK, "Embedded Foveation Image Coding", <i>IEEE Transactions on Image Processing</i> , Vol. 10, No. 10, October 2001, pp. 1397-1410.
AN	JAR-FERR YANG, SHIH-CHENG CHANG, and CHIN-YUN CHEN, "Computation Reduction for Motion Search in Low Rate Video Coders", <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , Vol. 12, No. 10, October 2002, pp.-948-951
AO	THOMAS WIEGAND, MICHAEL LIGHTSTONE, T. GEORGE CAMPBELL and SANJIT K. MITRA, "Efficient Mode Selection for Block-Based Motion Compensated Video Coding", Center for Information Processing Research, Dept. of Electrical and Computer Engineering, University of California, Santa Barbara
AP	RENXIANG LI, BING ZENG, and MING L. LIOU, "A New Three-Step Search Algorithm for Block Motion Estimation", <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , Vol. 4, No. 4., August 1994, pp. 438-442
AQ	SHAN ZHU and KAI-KUANG MA, "A New Diamond Search Algorithm for Fast Block-Matching Motion Estimation", <i>IEEE Transactions on Image Processing</i> , Vol. 9, No. 2, February 2000, pp. 287-290
AR	JORDI RIBAS-CORBERA and SHAWMIN LEI, "Rate Control in DCT Video Coding for Low-Delay Communications", <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , Vol. 9, No. 1, February 1999, pp. 172-185
AS	LAI-MAN PO and WING-CHUNG MA, "A Novel Four-Step Search Algorithm for Fast Block Motion Estimation", <i>IEEE Transactions Circuits Syst. Video Technol.</i> , Vol 6, No. 3, pp.313-317, June 1996
AT	ANDREW P. BRADLEY and FRED W. M. STENTIFORD, "JPEG 2000 and Region of Interest Coding", <i>DICTA2002: Digital Image Computing Techniques and Applications</i> , 21-22 January 2002, Melbourne, Australia, pp. 1-6

EXAMINER	DATE CONSIDERED
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**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.